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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,969	03/27/2002	Peter Andersen	P01,0218	1295

26574 7590 01/30/2003

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EXAMINER
WRIGHT, ANDREW D

ART UNIT	PAPER NUMBER
3617	

DATE MAILED: 01/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/868,969	Applicant(s) ANDERSEN, PETER	
	Examiner Andrew Wright	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 June 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the upper and lower and bottom and side tanks (they are not distinguishable in the drawings) (claim 12); the sound insulated machine control room (claim 17); the diesel engines having sound dampeners (claim 18); the auxiliary engines installed on a vibration dampening base (claim 21); and the exhaust gas line being moveable (claim 22) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 12 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 12 recites the limitation "the at least one azimuth rubber propeller" in lines 12-13. There is insufficient antecedent basis for this limitation in the claim. This appears to be a typographical error and it will be assumed for examination purposes that applicant is referring to the rudder propeller. Correction is required.

5. Claim 22 recites the limitation "the exhaust gas line of the drive system" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmi et al. (US 5,403,216) in view of Pleuger et al. (US 2,714,866) and Nemec (US 3,318,276). Salmi discloses a vessel with a forebody, stern, planar platform cargo deck, electric azimuth propeller at the stern, and transverse thruster at the bow (see figure 5). Salmi discloses that the stern propeller is driven by a generator that is driven by a main drive engine, but does not specify the type or location of the main drive engine (figure 3). Pleuger shows a ships propulsion system with a stern located, electric driven azimuth propeller. Pleuger teaches (column 2 lines 11-18) that the engine that drives the generator that powers the propeller may be a diesel engine, and that the engine and generator may be located at any place in the body of the ship. Since Salmi does not specify a type of main drive engine of location thereof, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Salmi by using a diesel engine located in the forebody as taught by Pleuger. The motivation would be to provide a main drive engine for the generator that powers the azimuth propeller, and to dispose that engine in a location

that optimizes the layout of the vessel. Salmi does not disclose ballast tanks. Ballast tanks are known in the art to be used for the purpose of trimming a vessel to insure stability and control. Nemec discloses a cargo vessel with upper and lower (1 and 2) and bottom (4) and side (11) ballast tanks. These tanks are selectively fillable and emptyable for the purpose of trimming the vessel to insure stability and control. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Salmi by using ballast tanks as taught by Nemec. The motivation would be to provide the ability to trim the vessel to insure stability and control.

8. Regarding claim 13, Salmi shows in figure 7 that the azimuth propeller may be a double propeller.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified invention of Salmi as applied to claim 13 above, and further in view of O'Brien (US 4,114,555). Salmi does not disclose the drive means for the bow thruster. O'Brien shows a ship's propulsion unit where both the main propeller and the bow thruster are electrically driven. Since the main propeller of Salmi is electrically driven, and based upon the teaching of O'Brien, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention of Salmi by driving the bow thruster off of the same electrical source. The motivation would be to save space and weight by using the same power source for both the main propeller and the bow-thruster.

10. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified invention of Salmi as applied to claim 14 above, and further in view of Nagafusa (US 5,318,466). Salmi does not disclose the bow-thruster can be controlled from either the wheelhouse and from bridge side wings. Nagafusa shows a ship with a main helm and a remote helm. Such arrangements are well known and provide the operator the flexibility of maintaining control of the ship from different locations of the ship. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention of Salmi by providing a remote helm for the bow thruster. The motivation would be to allow the operator to control the ship from various locations on the ship, such as during cruising or docking.

11. Regarding claim 16, the modified invention of Salmi as described with respect to claim 12 has bottom and side ballast tanks. And it is well known to provide a central control for the entire ship's ballast system in the wheelhouse so that the operator can control the trimming of the ship.

12. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified invention of Salmi as applied to claim 16 above, and further in view of Hussman (US 1,991,675). Salmi does not disclose a sound insulated machine control room. Hussman discloses a sound-insulated machine control room (figure 1) that also constitutes sound dampers for the main machines. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention of Salmi by providing sound-insulated machine control room. The motivation would be to prevent the annoyance of the crew as taught by Hussman.

13. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified invention of Salmi as applied to claim 18 above, and further in view of Honour (US 4,170,551). Salmi does not disclose that the main diesel engines operate with heavy oil having a viscosity of approximately 3500 seconds Redwood. Honour discloses a cargo ship that utilizes a slow-speed diesel engine that operates with high viscosity 3500 seconds Redwood fuel. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention of Salmi by using such an engine. The motivation would be to utilize an engine that is known to perform well in cargo vessels, and that can be adapted to use with the waste oil recovery unit disclosed by Honour.

14. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified invention of Salmi as applied to claim 19 above, and further in view of O'Brien (US 4,114,555). Salmi does not disclose auxiliary diesel engines. O'Brien shows a ship's propulsion unit where both the main propeller and the bow thruster are electrically driven, with the powers system comprising main diesel engines and auxiliary diesel engines. It is known in the art to use auxiliary engines to provide power for shipboard electrical systems. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention of Salmi by providing auxiliary diesel engines. The motivation would be to have a modular system where the drive engines power solely the drive generators and the auxiliary engines support other ship electrical needs. The auxiliary diesel engines would inherently be operated with marine diesel oil.

15. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified invention of Salmi as applied to claim 20 above, and further in view of Mantere (US 5,827,095). Salmi does not disclose that the auxiliary diesel engines are mounted on a vibration-damped base. Mantere shows a ship's diesel engine arrangement where the engine is mounted on a damped base. The motivation for such an arrangement is well known: to attenuate vibration and noise that is transmitted from the engine the ship's structure for the purpose of reducing fatigue wear on ship structure and to reduce annoyance of crew. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention of Salmi by providing vibration-dampening bases for all of the engines.

16. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified invention of Salmi as applied to claim 21 above, and further in view of Chaplin et al. (US 4,714,443). Salmi does not disclose a moveable exhaust line. Chaplin discloses an exhaust conduit for a diesel engine that is flexible (i.e. moveable). Chaplin teaches that the automatically adjusting cross section of the conduit optimizes engine performance at different engine operating speeds. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention of Salmi by providing a flexible exhaust conduit as taught by Chaplin, for the purpose of optimizing engine performance.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nelson (US 4,568,291) teaches the use of auxiliary diesel

engines to power ship equipment. Newman (US 5,741,166) teaches the use of multiple remote helm locations.

18. Any inquiry concerning this communication should be directed to examiner Andrew D. Wright at telephone number (703) 308-6841. The examiner can normally be reached Monday-Friday from 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joe Morano, can be reached at (703) 308-0230. The fax number for official communications is 703-872-9326 for before final proceedings and 703-872-9327 for after final proceedings. The fax number for the examiner for unofficial communications is 703-746-3548.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist at (703) 308-1113.

Andrew D. Wright
Patent Examiner
Art Unit 3617

1/24/03